

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: SULAKVELIDZE, A. *et al.* Examiner:  
Appl No.: 10/655,217 Group Art Unit:  
Filed: September 5, 2003 Docket: 00163.1800USC1  
Title: METHOD FOR PRODUCE SANITATION USING BACTERIOPHAGES

TRANSMITTAL SHEET

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

We are transmitting herewith the attached:

- Transmittal Sheet
- Information Disclosure Statement
- Form PTO-1449 citing 80 references
- A copy of 30 of the 80 references (cited in related application no. 09/757,687, filed January 11, 2001)
- Return postcard

It is believed there is no fee required to file the Information Disclosure Statement. However, the Commissioner is hereby authorized to charge any fees necessary to Deposit Account No. 13-2725.

Date: 12/4/03

By: Kristin K. Vidovich  
Name: Kristin K. Vidovich  
Registration No.: 41,448

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Customer No.  
**23552**



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INFORMATION DISCLOSURE STATEMENT (37 C.F.R. § 1.97(b))

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

With regard to the above-identified application, the items of information listed on the attached Form PTO-1449 are brought to the attention of the Examiner.

This statement should be considered because it is submitted within three months of the filing date of the above-identified application, which is not an application under 37 C.F.R. § 1.53(d). Accordingly, no fee is due for consideration of the items listed on the attached Form PTO-1449.

In accordance with 37 C.F.R. § 1.98(d), copies of the listed patents, publications or other information which have previously been cited and submitted to the U.S. Patent and Trademark Office in parent Application No. 09/757,686 filed on January 11, 2001, are not provided.

In accordance with 37 C.F.R. § 1.98(a), copies of the listed patents, publications or other information cited to the U.S. Patent and Trademark Office in related Application No. 09/757,687, filed on January 11, 2001, are provided and cited in bold on the attached Form PTO-1449.

No representation is made that a reference is "prior art" within the meaning of 35 U.S.C. §§ 102 and 103 and Applicants reserve the right, pursuant to 37 C.F.R. § 1.131 or otherwise, to establish that the reference(s) are not "prior art." Moreover, Applicants do not represent that a reference has been thoroughly reviewed or that any relevance of any portion of a reference is intended.

Consideration of the items listed is respectfully requested. Pursuant to the provisions of M.P.E.P. 609, it is requested that the Examiner return a copy of the attached Form PTO-1449,

marked as being considered and initialed by the Examiner, to the undersigned with the next official communication.

It is believed that there are no fees required to submit this Information Disclosure Statement. However, the Commissioner is authorized to charge any fees to Deposit Account No. 13-2725, if necessary.

Respectfully submitted,  
MERCHANT & GOULD, P.C.

Dated: 12/4/03

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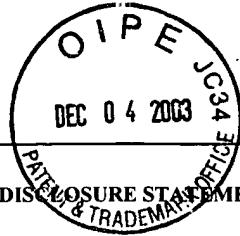
Customer No.  
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<b>FORM 1449*</b> <b>INFORMATION DISCLOSURE STATEMENT</b> <b>IN AN APPLICATION</b> <small>(Use several sheets if necessary)</small>		Docket Number: 00163.1800USCI	Application Number: 10/655,217
		Applicant: Sulakvelidze, A. <i>et al.</i>	
		Filing Date: September 5, 2003	Group Art Unit:

U.S. PATENT DOCUMENTS						
EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	2,876,108	3/3/1959	Taylor <i>et al.</i>			
	4,375,734	3/8/1983	Kosloff <i>et al.</i>			
	4,778,653	10/18/1988	Kamimura <i>et al.</i>			
	4,851,240	7/25/1989	Day <i>et al.</i>			
	4,891,210	1/2/1990	Norris			
	4,957,686	9/18/1990	Norris			
	5,006,347	4/9/1991	Day <i>et al.</i>			
	5,132,221	7/21/1992	Ward <i>et al.</i>			
	5,206,015	4/27/1993	Cox <i>et al.</i>			
	5,573,801	11/12/1996	Wilhoit			
	5,576,035	11/19/1996	Bowling <i>et al.</i>			
	5,612,182	3/18/1997	Pearson <i>et al.</i>			
	5,641,464	6/24/1997	Briggs, III <i>et al.</i>			
	5,660,812	8/26/1997	Merril <i>et al.</i>			
	5,688,501	11/18/1997	Merril <i>et al.</i>			
	5,766,892	6/16/1998	Merril <i>et al.</i>			
	5,811,093	9/22/1998	Merril <i>et al.</i>			
	5,869,113	2/9/1999	Clayton <i>et al.</i>			
	6,039,984	3/21/2000	Bowling <i>et al.</i>			
	6,121,036	9/19/2000	Ghanbari <i>et al.</i>			
	6,322,783	11/27/2001	Takahashi			
	6,428,976	8/6/2002	Chang <i>et al.</i>			
	6,461,608	10/8/2002	Averbach <i>et al.</i>			
	6,485,902	11/26/2002	Waddell <i>et al.</i>			
U.S. PUBLISHED APPLICATIONS						
	2002/0001590 A1	1/3/2002	Kelly <i>et al.</i>			

EXAMINER	DATE CONSIDERED
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.



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FOREIGN PATENT DOCUMENTS						
	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
						YES      NO
	0 290 295 A2	11/9/1988	Europe			
	0 403 292 A2	12/19/1990	Europe			
	0 414 304	2/27/1991	Europe			
	0 510 907	10/28/1992	Europe			
	0 970 613 A1	1/12/2000	Europe			
	DE 37 14699 A1	1/7/1988	Germany (w/English Abstract.)			X
	DE 43 26 617 C1	06/30/1994	Germany (w/English Abstract)			X
	DE 198 28 596 A1	2/11/1999	Germany (w/English Abstract)			X
	2253859	9/23/1992	Great Britain			
	JP 62298498 A	12/25/1987	Japan (w/English Abstract)			X
	JP 62123104	4/6/1987	Japan (w/English Abstract)			X
	JP 1163108 A	6/27/1989	Japan (w/English Abstract)			X
	WO 90/13631	11/15/1990	PCT			
	WO 90/14765	12/13/1990	PCT			
	WO 95/27043	10/12/1995	PCT			
	WO 96/04364	2/15/1996	PCT			
	WO 97/13405	4/17/1997	PCT			
	WO 97/39111	10/23/1997	PCT			
	WO 98/47521	10/29/1998	PCT			
	WO 98/54981	12/10/1998	PCT			
	WO 00/01799	1/13/2000	PCT			
	WO 00/69269	11/23/2000	PCT			

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		Applicant: Sulakvelidze, A. <i>et al.</i>	
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<b>OTHER DOCUMENTS</b> (Including Author, Title, Date, Pertinent Pages, Etc.)	
	Adamia <i>et al.</i> , "The Virulent Bacteriophage IRA of <i>Salmonella Typhimurium</i> : Cloning of Phage Genes which are Potentially Lethal for the Host Cell," <i>J. Basic Microbiol.</i> , 30(10):707-716 (1990).
	Alavidze <i>et al.</i> , "Isolation of Specific Lytic Phages against Multidrug Resistant <i>Pseudomonas aeruginosa</i> ," American Society for Microbiology, Final Program, McCormick Place, Chicago, IL, Vol. 99, pp. 447 (May 30-June 3, 1999).
	Barrow <i>et al.</i> , "Bacteriophage Therapy and Prophylaxis: Rediscovery and Renewed Assessment of Potential," <i>Trends in Microbiology</i> , 5:268-271 (1997).
	Barrow <i>et al.</i> , "Salmonellosis-Prospects for Microbiological Control in Poultry," <i>Avian Pathology</i> , 18:557-561 (1989).
	Barrow <i>et al.</i> , "Use of Lytic Bacteriophage for Control of Experimental <i>Escherichia coli</i> Septicemia and Meningitis in Chickens and Calves," <i>Clin. Diagnostic Lab. Immun.</i> , 5(3):294-298 (May 1998).
	Barrow, "Bacteriophages Mediating Somatic Antigenic Conversion in <i>Salmonella cholerae-suis</i> : Their Isolation from Sewage and Other <i>Salmonella</i> Serotypes Possessing the Somatic 6 Antigen," <i>J. Gen. Microbiol.</i> , 132:835-837 (1986).
	Berchieri <i>et al.</i> , "The Activity in the Chicken Alimentary Tract of Bacteriophages Lytic for <i>Salmonella typhimurium</i> ," <i>Res. Microbiol.</i> , 142(5):541-549 (June 1991).
	Bogovazova <i>et al.</i> , "Immunobiological Properties & Therapeutic Effectiveness of Preparations from <i>Klebsiella</i> Bacteriophages," <i>Zh. Mikrobiol. Epidemiol. Immunobiol.</i> , 3:30-33 (1992).
	Gachechiladze <i>et al.</i> , "Host-Controlled Modification and Restriction as a Criterion of Evaluating the Therapeutical Potential of <i>Pseudomonas</i> Phage," <i>J. Basic Microbiol.</i> , 31(2):101-106 (1991).
	Greer <i>et al.</i> , "Inability of a Bacteriophage Pool to Control Beef Spoilage," <i>Internat. J. Food Microbiol.</i> , 10(3-4):331-342 (May 1990).
	Greer, "Homologous Bacteriophage Control of <i>Pseudomonas</i> Growth and Beef Spoilage," <i>J. Food Prot.</i> , 49(2):104-109 (February 1986).
	Kudva <i>et al.</i> , "Biocontrol of <i>Escherichia coli</i> O157 with O157-Specific Bacteriophages," <i>Appl. Environ. Microbiol.</i> , 65:3767-3773 (1999).
	Kuhnen <i>et al.</i> , "Establishment of a Typing System for Group D Streptococci," <i>Zentralblatt Fur Bakteriologie, Mikrobiologie, Und Hygiene, Series A, Medical Microbiology, Infectious Diseases, Virology, Parasitology</i> , 267(3):322-330 (January 1988) (Abstract).
	Lenski, "Dynamics of Interactions Between Bacteria and Virulent Bacteriophage," <i>Adv. Microb. Ecol.</i> , 10:1-44 (1988).
	Leverentz <i>et al.</i> , "Biocontrol of <i>Listeria monocytogenes</i> on Fresh-Cut Produce by Treatment with Lytic Bacteriophages and a Bacteriocin," <i>Appl. Environ. Micro.</i> , 69(8):4519-4526 (August 2003).
	Leverentz <i>et al.</i> , "Examination of Bacteriophage as a Biocontrol Method for <i>Salmonella</i> on Fresh-Cut Fruit: A Model Study," <i>J. Food Prot.</i> , 64(8):1116-1121 (August 2001).
	Levin <i>et al.</i> , "Phage Therapy Revisited: The Population Biology of a Bacterial Infection and its Treatment with Bacteriophage and Antibiotics," <i>The American Naturalist</i> , 147:881-898 (1996).
	Ochs, "Immunologic Responses to Bacteriophage Φ X174 in Immunodeficiency Diseases," <i>J. Clin. Invest.</i> , 50:2559-2567 (1971).

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<b>OTHER DOCUMENTS</b> (Including Author, Title, Date, Pertinent Pages, Etc.)		
		Slopek <i>et al.</i> , "Results of Bacteriophage Treatment of Suppurative Bacterial Infections. I. General Evaluation of the Results," <i>Arch. Immunol. Therapiae Exper.</i> , 31:267-291 (1983).
		Slopek <i>et al.</i> , "Results of Bacteriophage Treatment of Suppurative Bacterial Infections. II. Detailed Evaluation of the Results," <i>Arch. Immunol. Therapiae Exper.</i> , 31:293-327 (1983).
		Slopek <i>et al.</i> , "Results of Bacteriophage Treatment of Suppurative Bacterial Infections. III. Detailed Evaluation of Results Obtained in Further 150 Cases," <i>Arch. Immunol. Therapiae Exper.</i> , 32:317-335 (1984).
		Slopek <i>et al.</i> , "Results of Bacteriophage Treatment of Suppurative Bacterial Infections. IV. Evaluation of the Results Obtained in Further 370 Cases," <i>Arch. Immunol. Therapiae Exper.</i> , 33:219-240 (1985).
		Slopek <i>et al.</i> , "Results of Bacteriophage Treatment of Suppurative Bacterial Infections. V. Evaluation of the Results Obtained in Children," <i>Arch. Immunol. Therapiae Exper.</i> , 33:241-259 (1985).
		Slopek <i>et al.</i> , "Results of Bacteriophage Treatment of Suppurative Bacterial Infections. VI. Analysis of Treatment of Suppurative Staphylococcal Infections," <i>Arch. Immunol. Therapiae Exper.</i> , 33:261-273 (1985).
		Slopek <i>et al.</i> , "Results of Bacteriophage Treatment of Suppurative Bacterial Infections in the Years 1981-1986," <i>Arch. Immunol. Therapiae Exper.</i> , 35:569-583 (1987).
		Smith <i>et al.</i> , "Effectiveness of Phages in Treating Experimental <i>Escherichia coli</i> Diarrhoea in Calves, Piglets and Lambs," <i>J. Gen. Microbiol.</i> , 129:2659-2675 (1983).
		Smith <i>et al.</i> , "Successful Treatment of Experimental <i>Escherichia coli</i> Infections in Mice Using Phage: Its General Superiority Over Antibiotics," <i>J. Gen. Microbiol.</i> , 128:307-318 (1982).
		Smith <i>et al.</i> , "The Control of Experimental <i>Escherichia coli</i> Diarrhoea in Calves by Means of Bacteriophages," <i>J. Gen. Microbiol.</i> , 133:1111-1126 (1987).
		Soothill <i>et al.</i> , "The Efficacy of Phages in the Prevention of the Destruction of Pig Skin <i>in vitro</i> by <i>Pseudomonas aeruginosa</i> ," <i>Med. Sci. Res.</i> , 16:1287-1288 (1988).
		Soothill, "Bacteriophage Prevents Destruction of Skin Grafts by <i>Pseudomonas aeruginosa</i> ," <i>Burns</i> , 20:209-211 (1994).
		Soothill, "Treatment of Experimental Infections of Mice with Bacteriophages," <i>J. Med. Microbiol.</i> , 37:258-261 (1992).
		Tauxe, "Emerging Foodborne Diseases: An Evolving Public Health Challenge," <i>Emerging Infect. Diseases</i> , 3(4):425-434 (October-December 1997).
		Whichard <i>et al.</i> , "Suppression of <i>Salmonella</i> Growth by Wild-Type and Large-Plaque Variants of Bacteriophage Felix O1 in Liquid Culture and on Chicken Frankfurters," <i>J. Food Prot.</i> , 66(2):220-225 (February 2003).

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